

REMARKS/ARGUMENTS

Favorable reconsideration of this application, as presently amended and in light of the following discussion, is respectfully requested.

Claims 1-7 and 11-16 are pending in the present application, Claims 13-16 having been added. Support for the present amendment is believed to be self-evident from the originally filed specification.¹ Applicant respectfully submits that no new matter is added.

In the outstanding Office Action, Claim 7 was rejected under 35 U.S.C. §112, second paragraph; Claims 1, 2, 5-7, 11, and 12 were rejected under 35 U.S.C. §103(a) as unpatentable over Klosner (U.S. Patent No. 6,416,908) in view of Yuasa (U.S. Patent Publication No. 2003/0104287); Claim 3 was rejected under 35 U.S.C. §103(a) as unpatentable over Klosner in view of Yuasa, and further in view of Yuki (U.S. Patent Publication No. 2003/0054601); and Claim 14 was rejected under 35 U.S.C. §103(a) as unpatentable over Klosner in view of Yuasa, and further in view of Yuki and Furukawa (U.S. Patent Publication No. 2005/0202322).

Applicant thanks the Examiner for the courtesy of an interview extended to Applicant's representative on January 7, 2010. During the interview, differences between the present invention and the applied art, and the rejections noted in the outstanding Office Action were discussed. The Examiner agreed to drop the rejection under 35 U.S.C. §112, second paragraph. No agreement was reached with respect to the rejections based on art pending the Examiner's further review when a response is filed. Arguments presented during the interview are reiterated below.

Applicant respectfully traverses the rejection of Claim 7 under 35 U.S.C. §112, second paragraph. Pages 2-3 of the Office Action states "[i]t is not clear if [dimension] is the pitch, the width of the patterns, the height of the patterns, [or] the length of the patterns...."

¹ See, specification, page 8, lines 13-27.

According to MPEP §2173.04, breadth is not indefiniteness. The claimed “dimension” reading on more than one characteristic does not render Claim 7 indefinite. Thus, this ground of rejection should be withdrawn.

Applicant respectfully traverses the rejection of Claim 1. Claim 1 recites,

A process for preparing a lithographic mask,
comprising:

making patterns on a plane mask, the plane mask
having an SOI structure, comprising a layer of
semiconductor material, a buried layer of insulant and a
substrate; and

transferring the patterns and the plane mask to a
curved support that includes at least one point of non-nil
curvature.

A proper combination of Klosner and Yuasa does not render Claim 1 obvious.

Col. 9 and Fig. 5 of Klosner explain that a mask is made in an Al on polypropylene layer. According to Klosner this mask is “stretched” over a curved support (either fused silica or metalized fused silica) in a “state of tension.”² Klosner does not disclose using an SOI structure as described in Claim 1. The Office Action refers to an SOI structure in Yuasa, and states

...one having ordinary skill in the art would have been motivated to exchange the metalized polymer membrane of KLOSNER with the materials such as silicon base material, insulating layer, and SOI layer of YUASA, because KLOSNER teaches that alternative materials may be suitable, and YUASA teaches alternative electron beam mask materials that may be used in the method of KLOSNER, since this is the application of prior art materials for predictable results, of forming a [sic] electron beam lithography mask.³

² Klosner, col. 9, lines 8 to 26.

³ Office Action, pages 4-5.

However, Klosner's description that alternative materials may be used at col. 9, lines 33-39 is not a license for the Office to pick and chose materials and reconstruct the claimed invention. There is no evidence in the record to indicate that the SOI structure of Yuasa would be suitable for Klosner. Particularly, Klosner's method requires stretching the mask so it is under tension. There is no evidence in the record to support the proposition that the SOI structure from Yuasa can be stretched and placed under tension as required by the method of Klosner. Thus, the Office has not established a *prima facie* case of obviousness because there is a lack of evidence to support the proposition that a person of ordinary skill in the art could substitute the SOI structure of Yuasa for the metalized polymer membrane of Klosner.

In view of the above-noted distinctions, Applicant respectfully submits that Claim 1 (and any claims dependent thereon) patentably distinguish over Klosner and Yuasa, taken in proper combination.

Addressing each of the further rejections, each of the further rejections is also traversed by the present response as no teachings in any of the further cited references to Yuki and Furukawa can overcome the above-noted deficiencies of Klosner and Yuasa. Accordingly, it is respectfully requested that those rejections be withdrawn for similar reasons as discussed above.

Moreover, Applicant submits that Claim 12 further patentably distinguishes over Klosner and Yuasa. Claim 12 recites "disposing the curved support, with the patterns transferred thereto, to contact another substrate; and causing the curved support, with the patterns transferred thereto, to rotate and transfer an image to the another substrate." Col. 9, lines 19-28 of Klosner describes mask fabrication and does not describe transferring the mask pattern from the curved surface to another substrate. Furthermore, such a transfer of the mask pattern to another substrate would be done using the device of Klosner's Fig. 2. Klosner does not describe the above-noted steps of Claim 12.

Moreover, Applicant submits that new Claims 13 and 14 further patentably distinguishes over Klosner and Yuasa. Klosner does not disclose deforming the curved support with an actuator as described in Claims 13 and 14.

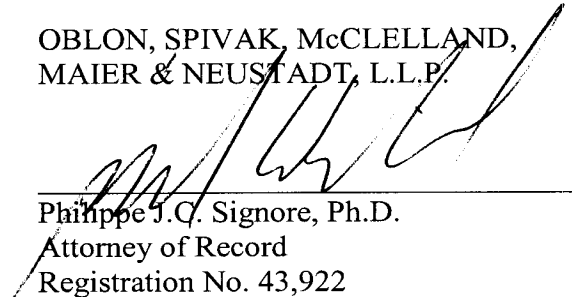
Moreover, Applicant submits that new Claim 15 further patentably distinguishes over Klosner and Yuasa. Yuasa described forming patterns by etching an entirety of the SOI structure (see Fig. 4B for example). Thus, Yuasa does not describe the claimed “forming the patterns only in a surface layer of the SOI structure.”

Moreover, Applicant submits that new Claim 16 further patentably distinguishes over Klosner and Yuasa. With respect to the SOI structure, a proper combination of Klosner and Yuasa do not show “separating the surface layer of the SOI structure from the substrate prior to the transferring.”

Consequently, in light of the above discussion and in view of the present amendment, the present application is believed to be in condition for allowance and an early and favorable action to that effect is respectfully requested.

Respectfully submitted,

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